# Virginia Saltwater Development Fund Evaluation of a Proposal for the Development of a Research or Data Collection Project

Project Number: 0409-17 Date: June 30, 2009

**Title:** S) 2010 Understanding the Impacts of Mycobacterial Disease on Striped Bass: When and Where does Mortality Occur in the Rappahannock River

"The Virginia Saltwater Recreational Fishing Development Fund is to be used solely for the purpose of conserving and enhancing finfish taken by recreational anglers, enforcing laws related to natural resource conservation, improving recreational fishing opportunities, obtaining necessary data and conducting research for fisheries management, and creating or restoring habitat for species taken by recreational fishermen."

Code of Virginia, Section 28.2-302.3

NOTE: Please read the entire scoresheet before beginning, then provide comments, and circle () the appropriate score for each item. Thank You.

#### A. Problem Description and Resolution (20 points)

1. Comment on the adequacy of the problem description, background information, knowledge of available literature/data sources, and anticipated benefits.

Issues related to mycobacterial disease, including natural mortality and undesirability of harvested fish with the disease are important for recreational fishing. By understanding the causes of this disease, factors that influence the disease progression can be recognized by fisheries managers and appropriate action taken to protect the stock. Additionally recreational fishermen may be able to avoid areas where the disease may be more apparent, improving their fishing experience.

The authors have been involved with studying this disease in the past and present background information including results from other studies they have conducted. The anticipated benefits of this work is a better understanding of the progression of this disease which would allow a better estimate of natural mortality of striped bass and improved population models.

# 2. Describe your views on the conceptual approach to solve the problem.

The study will involve the tagging and release of striped bass. Observations of recaptured fish will allow the authors to evaluate trends for seasonal and spatial effects of the disease. While this approach reveals where the fish is located at the time of capture it does not quantitatively measure what habitats and environmental parameters the fish has been spending it's time while at liberty.

SCORE (Circle one)
Poor
Excellent
0 5 10 (15) 20

#### B. Soundness of Project Design/Technical Approach (25 points)

## 1. Is there sufficient information to technically evaluate the proposal?

The authors did not directly address the methods that they will be using for this study. They did mention some basic ideas but did not include information regarding sample sizes and measurement of environmental conditions (eg dissolved oxygen and water temperatures) the fish may be experiencing. This kind of environmental data is available through different departments at VIMS and the authors should use this data in their analyses.

# 2. What are the strengths/weaknesses of the project design (thoroughness, practicality, methods, integration with other work, etc.)?

The authors are currently involved with studying this disease and familiar with the ecology of mycobacteriosis. Their methods have been used in previous tagging efforts and would compliment their earlier work. Earlier work has provided data on mortality rates and large scale movements. This work would provide more localized movements within the estuary on seasonal scales.

# C. Project Management and Experience/Qualifications of Personnel (15 points)

What is your opinion of the experience and capabilities of the Principal Investigator(s) to manage and conduct the work, the availability of facilities, and education and experience of assisting personnel.

SCORE (Circle one)
Poor
Excellent
0 5 10 15

### D. Project costs (15 points)

Is the budget realistic and reasonable? Indicate any unreasonable costs.

Budget is reasonable with approximately 50% matching funds from VIMS.

SCORE (circle One)
Poor
0 5 10 Excellent
15

#### E. Value of the Project to Fisheries Managers (25 points)

Do you believe the results of this project will further management of the species described? Will the results be useful to managers?

The data should provide better estimates of natural mortality by providing information on seasonal effects on disease progression. This will allow managers to better estimate population size and set appropriate levels for fishing mortality.

SCORE (circle one) Poor Excellent 0 5 10 (15) 20 25

PLEASE ADD ANY FURTHER COMMENTS ON THE PROPOSALS BELOW: